

**IN THE CLAIMS:**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1 1. (Currently Amended) A system comprising:  
2 a signal generating and receiving unit;  
3 a cableless coupling assembly, the cableless coupling assembly comprising  
4 intermediate elements coupled to electrical pads wherein the intermediate elements  
5 comprise electrically conductive particles, and is configured to attenuate sound; and  
6 an ultrasound transducing assembly coupled via the cableless coupling  
7 assembly to the signal generating and receiving unit.

1 2. (Currently Amended) A system comprising:  
2 transducers having  
3 acoustic transducing elements and  
4 an acoustically isolating assembly connected to the acoustic  
5 transducing elements; and  
6 a signal generating and receiving unit connected to the acoustically isolating  
7 assembly wherein the transducers are directly connected to the signal generating  
8 and receiving unit via a connector.

1 3. (Original) The system of claim 2 wherein the acoustic transducing elements  
2 include at least an acoustically active material between two electrical contacts.

1 4. (Original) The system of claim 3 wherein the acoustic transducing elements  
2 include an acoustic matching assembly coupled to one of the two electrical contacts  
3 and an acoustic window coupled to the acoustic matching assembly.

- 1 5. (Original) The system of claim 2 wherein the signal generating and receiving  
2 unit includes a motherboard.
- 1 6. (Original) The system of claim 2 wherein a filler material is placed within  
2 kerfs formed by the acoustically isolating assembly.
- 1 7. (Original) The system of claim 2 wherein the acoustically isolating assembly  
2 includes posts of an electrically conductive and acoustically attenuating material.
- 1 8. (Original) The system of claim 7 wherein the posts are anisotropic  
2 conductors.
- 1 9. (Original) The system of claim 7 wherein the posts are isotropic conductors.
- 1 10. (Original) The system of claim 2 wherein the acoustically isolating assembly  
2 includes insulating posts having conductors for conducting electrical signals.
- 1 11. (Original) The system of claim 10 wherein the conductors are partially  
2 embedded within the posts.
- 1 12. (Original) The system of claim 10 wherein the conductors are attached to the  
2 outside of the posts.
- 1 13. (Original) The system of claim 10 wherein the conductors have an insulative  
2 backing that is coupled with the posts.
- 1 14. (Original) The system of claim 10 wherein the conductors are longer than and  
2 extend beyond the posts.

1 15. (Currently Amended) A system comprising:  
2 circuitry having a signal generating and receiving unit;  
3 acoustic transducing elements that include  
4 an acoustically active material between two electrical contacts,  
5 an acoustic matching assembly coupled to one of the two electrical  
6 contacts, and  
7 an acoustic window coupled to the acoustic matching assembly;  
8 a cableless coupling assembly coupled to the signal generating and receiving  
9 unit and the acoustic transducing elements wherein a transducer is directly  
10 connected to the signal generating and receiving unit via a connector, including at  
11 least  
12 an acoustically isolating assembly having posts configured to be  
13 electrically conductive and acoustically attenuating, isolating the acoustic  
14 transducing elements; and  
15 a filler material placed within kerfs formed by the acoustically  
16 isolating assembly.

1 16. (Original) The system of claim 15 wherein the posts are anisotropic  
2 conductors.

1 17. (Original) The system of claim 15 wherein the posts are isotropic conductors.

1 18. (Original) The system of claim 15 wherein the acoustically isolating assembly  
2 includes conductors for conducting electrical signals coupled to the posts.

1 19. (Original) The system of claim 18 wherein the conductors are partially  
2 embedded within the posts.

1 20. (Original) The system of claim 18 further comprising an acoustical index  
2 matching element.

1 21. (Original) The system of claim 18 wherein the conductors are attached to the  
2 outside of the posts.

1 22. (Original) The system of claim 18 wherein the conductors have an insulative  
2 backing that is coupled with the posts.

1 23. (Original) The system of claim 18 wherein the conductors are longer than and  
2 extend beyond the posts.

1 24-47. (Withdrawn)

1 48. (Currently Amended) A system comprising:

2 a signal generating and receiving means;

3 an ultrasound transducing means;

4 a cableless coupling means connected to the signal generating and receiving

5 means and to the ultrasound transducing means wherein the ultrasound transducing

6 means are directly connected to the signal generating and receiving means via

7 connection means, including

8 a means for acoustically isolating the ultrasound transducing means from

9 the signal generating and receiving means, and

10 a means for conducting electricity; and

11 an acoustic backing means for attenuating acoustic reflections.